## REMARKS

Claims 1-11 are pending.

Claims 1-5 and 7-10 stand rejected under 35 U.S.C. §103 as being

unpatentable over Poulin in view of Thornberg. Applicant respectfully traverses

this art grounds of rejection.

Poulin discloses a system and method for calculating RTD values in a

switched digital network. This system and method employ the concept of time

stamps. This system and method comprises a network node sending a packet

to another network node, and then the receiving network node sending a

response packet. All timestamps and delta values recorded are stored onto a

loopback cell, or a Operations and Maintenance (OAM) cell (col. 1, lines 35-40).

As shown in FIG .1, Node 1 sends a packet to Node 2, and after a loopback

process at Node 2, a reply packet is sent back to Node 1. Timestamps are

recorded to the OAM cell at $t(1,1)$, $t(1,2)$, $t(2,1)$, and $t(2,2)$ as depicted in FIG. 1.

Here $t(1,1)$ is the timestamp at Node 1 when first packet is sent to Node 2,

$t(2,1)$ is the timestamp at Node 2 when first packet is received, $t(2,2)$ is the

timestamp at Node 2 when second packet is sent, and $t(1,2)$ is the timestamp

at Node 1 when the second packet is received. Further, the delta value, which

is the difference between $t(2,2)$ and $t(2,1)$, is recorded to the OAM cell (see

col. 2, lines 37-39).

Poulin's method completes the calculation of RTD at Node 1 (see FIG. 1, col. 2, lines 30-42). This calculation is performed sometime after the receipt of the return packet from Node 2. This calculation takes t(1,2) and subtracts t(1,1), and then takes the result and subtracts the delta value (see col. 2, lines 39-42).

Poulin does not disclose or suggest converting any of these timestamps from a periodic to a continuous time scale. Instead, it is apparent that the timestamps remain in the same time domain throughout the RTD calculation. Therefore, Poulin does not disclose or suggest "converting the received downlink and uplink timing information to a continuous time scale" as recited in claim 1. Therefore, Poulin can not disclose or suggest "determining a time offset estimate between the central node and the secondary node *based on the converted downlink and uplink timing information.*" (emphasis added) as recited in claim 1.

The Examiner relies on Thornberg for establishing that it would be obvious to calculate RTD by calculating the uplink and downlink delays separately rather than together because Thornberg teaches that both calculations would provide the same overall delay time (see page 3 of Office Action dated December 18, 2003). Thornberg discloses a method and system for packet switched radio channel traffic supervision in a telecommunications system. One of the functions of this traffic supervision is an excess traffic

monitor. Thornberg states "[t]he excess traffic monitor monitors the estimate of average data traffic for each packet call on the PRCH to determine if the average data traffic has exceeded a maximum data traffic for that packet call." (see col. 2, line 66 – col. 3, line 2). Thornberg teaches determining data traffic by calculating the estimated average packet delay for each packet call.

Thornberg does not disclose or suggest "converting the received downlink and uplink timing information to a continuous time scale" or "determining a time offset estimate between the central node and the secondary node based on the converted downlink and uplink timing information." as recited in claim 1.

Therefore, Poulin in view of Thornberg fails to render claim 1 obvious to one skilled in the art. As such, the claims 2-4 and 7-10, dependent on claim 1, are likewise allowable over the cited references at least for the reasons given above with respect to the independent claims.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

Claims 6 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Poulin and Thornberg as applied to Claim 1-5 and 7-10, in view of Premerlani. Applicant respectfully traverses this art grounds of rejection.

As discussed above, Poulin in view of Thornberg fails to disclose or suggest the subject matter of claim 1.

Premerlani teaches a method and apparatus for clock control and synchronization. The phase differential in the current at two nodes is used along with the relative time stamps at different nodes to synchronize the nodes on a network. Specifically, Premerlani teaches making round trip delay (RTD) measurements between two nodes and calculating a time offset using the RTD measurements. After determining the time offset, Premerlani determines if time wrap around occurred at either of the two nodes. For each node where time wrap around occurred, Premerlani teaches making an adjustment to the time offset. Accordingly, if both nodes experienced time wrap around, two adjustments would be made to the time offset.

By contrast, claim 11 recites "adjusting the received downlink and uplink timing information for time wraparound." Claim 11 further recites "determining a time offset estimate between the central node and the secondary node based on the *adjusted downlink and uplink timing information.*" (emphasis added). In this manner, the claimed invention provides the benefit of avoiding multiple adjustments to the time offset made in Premerlani, and provides a more efficient determination of the time offset. Therefore, Poulin in view of Thornberg and Premerlani fails to render Claim 11 obvious to one skilled in the art.

In a related fashion, Claim 1 recites, "determining a time offset estimate between the central node and the secondary node based on the *converted*

*downlink and uplink timing information.*" (emphasis added). Therefore, Poulin in view of Thornberg and Premerlani fails to render Claim 1 obvious to one skilled in the art. As such, claim 6, dependent on Claim 1, is likewise allowable over the cited references at least for the reasons given above with respect to independent claim 1.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

### CONCLUSION

Prompt and favorable consideration of this Reply is respectfully requested. All of the stated grounds of rejection have been properly traversed, accommodated, and/or rendered moot. Applicant therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number listed below.
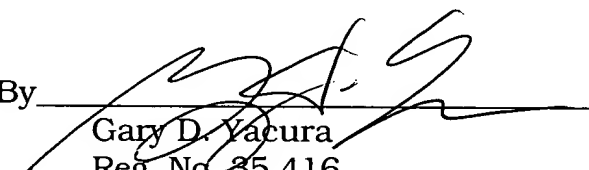
Applicant also requests that the Examiner provide Applicant with an indication of his favorable receipt of Applicant's position stated above.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Very truly yours,

HARNESS, DICKEY & PIERCE, PLC

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